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**United States
Department of Energy**

**Proposed Long-Term Uranium
Sales Strategy**

**Office of Nuclear Energy
Office of Environmental Management
Office of Defense Nuclear Nonproliferation**

August 4, 2006



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Purpose

Explain Draft Long-Term Uranium Sales Strategy

- **DOE's has program needs to sell, reduce costs.**
- **Nuclear fuel community has concerns over the additional DOE uranium inventory and its potential disposition.**
- **No desire to disrupt the market.**
- **We want to communicate with industry.**

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Objectives for DOE's Uranium Sales Strategy

- 1. Establish a comprehensive strategy for near- and long-term sales of uranium.**
- 2. Establish an understanding with industry regarding annual uranium sales quantity. Preserving DOE's right to act in case of emergency in domestic market.**
- 3. Ensure there will be no adverse material impact on the U.S. nuclear fuel industry as a result of DOE sales.**
- 4. Communicate the DOE uranium sales strategy to Congress and industry to enhance transparency of the sales.**

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Sales Strategy has Two Tracks

1. Immediate Actions

- DOE plans to sell some additional uranium in 2006 and 2007 to complete its Tc-99 uranium cleanup program.
- NNSA plans to issue RFP to downblend HEU into LEU to support the Secretary's Reliable Fuel Supply initiative.

2. Future Actions

- DOE is considering future sales from its inventories.

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Background

- **DOE has uranium inventories in various forms and assays. This includes depleted uranium, natural uranium, low enriched uranium (LEU) and highly enriched uranium (HEU).**
- **Over the years, this uranium was acquired through defense programs, the HEU Purchase Agreement, the DOE uranium enrichment enterprise, and other sources.**
- **DOE incurs a cost to maintain these various uranium inventories, which ultimately must be borne by the taxpayer.**
- **The shutdown and cleanup of the Portsmouth Gaseous Diffusion Plant may require disposition of uranium inventories.**

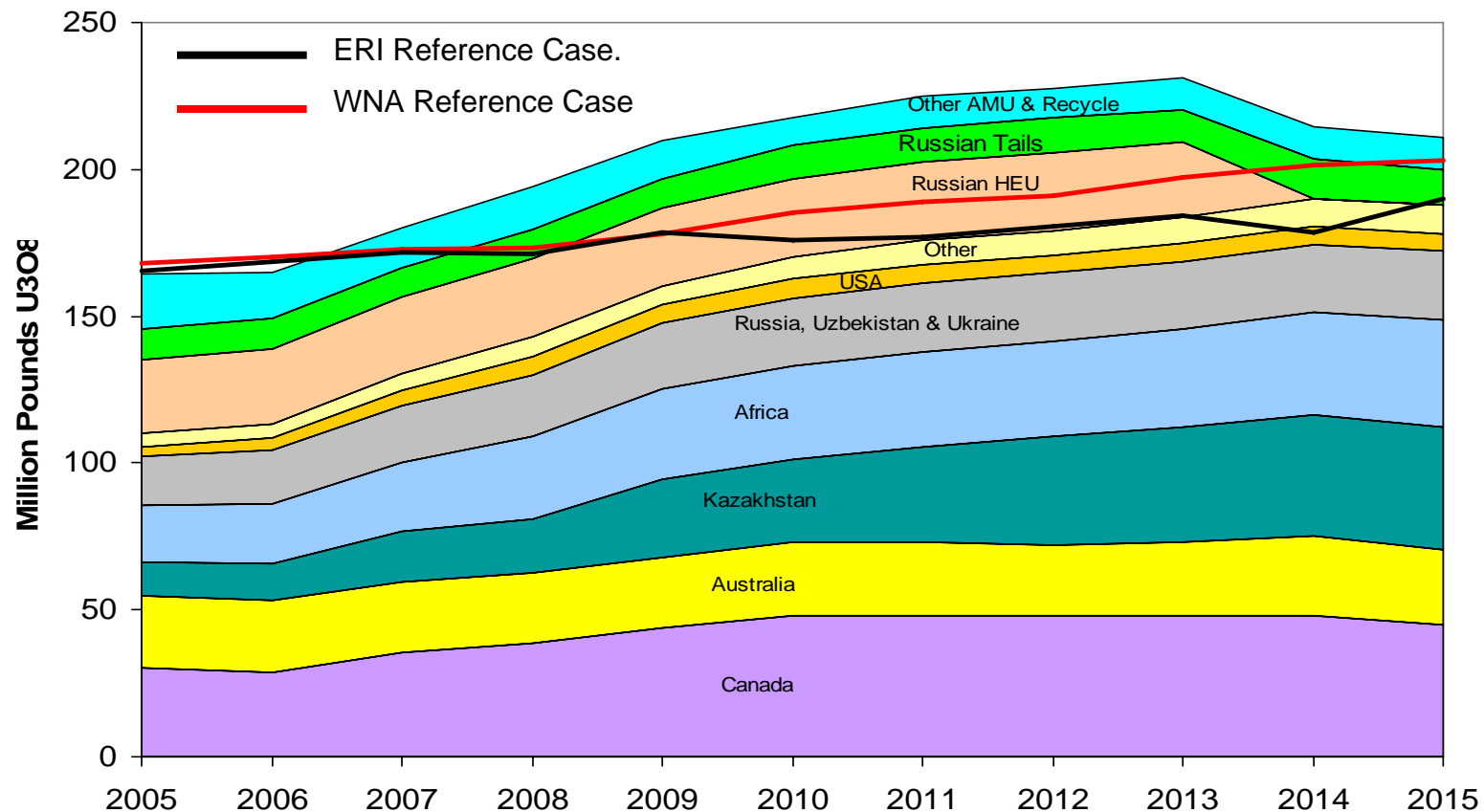
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World Uranium Supply & Demand

- Uranium supply appears tight in the near-term.
- Production is expected to increase over the next several years.
- Demand is likely to increase after 2015 as new reactors come on line.



Based on ERI's 2006 Nuclear Fuel Cycle Supply & Price Report

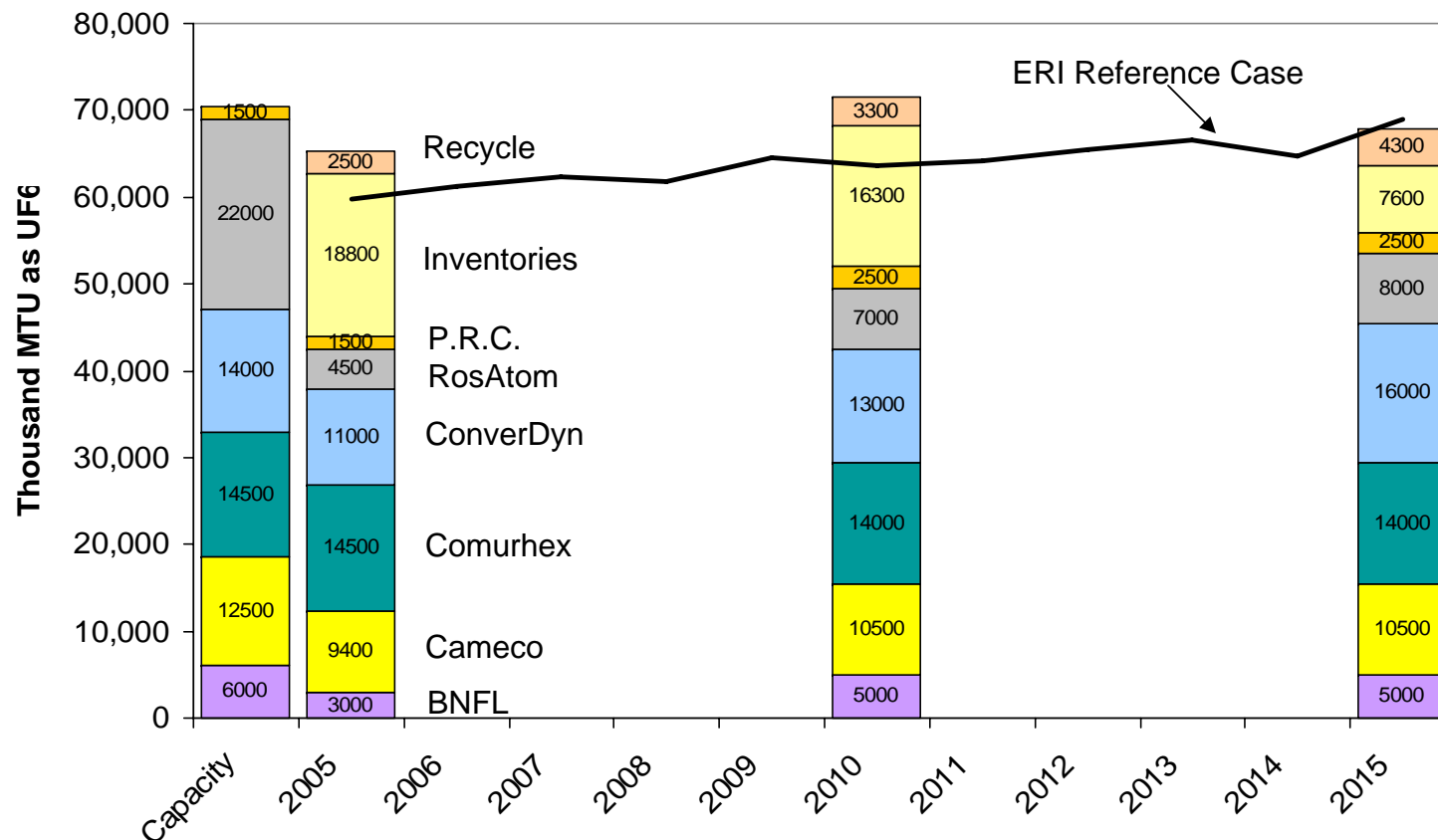
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World Conversion Supply & Demand

- World conversion supply margins are extremely thin.
- Market prices for conversion services have increased significantly during the last several years.



Based on ERI's 2006 Nuclear Fuel Cycle Supply & Price Report

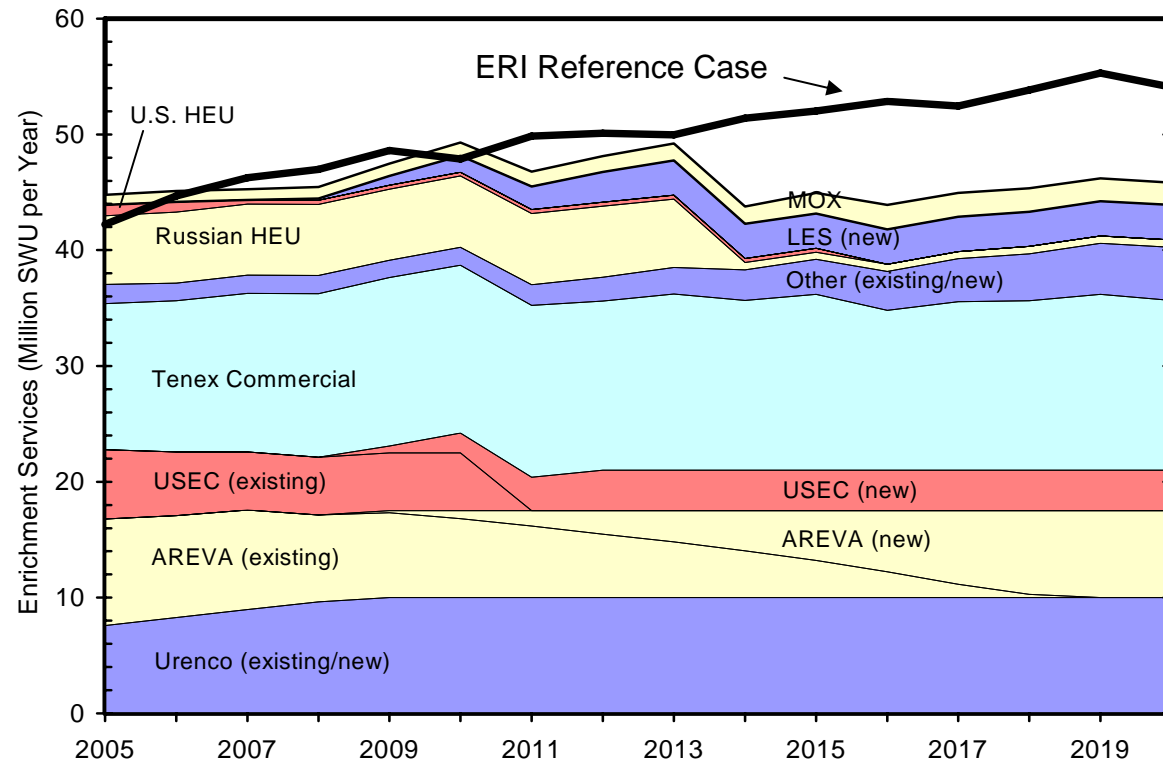
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World Enrichment Supply & Demand

- Requirements have increased due to lower tails assay selections by buyers and demand is expected to increase steadily.
- Supply/demand remains in balance only through 2013.
- Market prices for enrichment have increased moderately recently.



Based on ERI's 2006 Nuclear Fuel Cycle Supply & Price Report

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DOE Excess Uranium Inventory

Overview of DOE Excess Uranium Inventory (end of May 2006)

Inventory	Uranium Product MTU	Enrichment Level	NU Equivalent Million lbs.	
			U ₃ O ₈	MTU
U.S. HEU to be Blended to LEU	120	HEU	55.8	21,474
U.S.-Origin UF ₆	5,517	NU	14.2	5,517
Russian-Origin UF ₆	12,985	NU	33.7	12,985
Off-Spec Non-UF ₆ *	4,470	DU/NU/LEU	7.5	2,900
Depleted Uranium UF ₆ **	27,520	DU	23.7	9,104
Total DOE Excess Uranium Inventory:			134.9	51,980

* NU equivalent corresponds to NU and LEU material only.

** Depleted Uranium as UF₆ having an assay equal to 0.40 percent ²³⁵U but less than 0.711 percent ²³⁵U.

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DOE's Uranium Sales Strategy

- **Will propose annual uranium sales from 2006 through 2015 (ten years).**
- **Will propose an annual limit on sales (current version is based on 10% of the total annual fuel requirements for U.S. commercial power reactors (e.g., five million pounds of U_3O_8)).**
- **Establishes a Three-Tiered Priority for Sales:**
 - Immediate Sales (FY 2006 & FY 2007)
 - High Priority Sales (FY 2007 and beyond)
 - Lower Priority Sales (FY 2007 and beyond)
- **Will include a market analysis to assess the impact of DOE sales on the U.S. nuclear fuel industry.**
- **Proposes an annual review to consider program and market changes.**
- **Requires DOE management approval to issue the uranium sales plan.**

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DOE's Uranium Sale Priorities

- **Immediate Sales - 2,100 MTU (5.5 M lbs U_3O_8) from 2006 through 2010**
 - NNSA sale of U.S.-origin HEU blended to LEU for the Reliable Fuel Supply Initiative.
 - EM sale of Russian-origin natural uranium for continued Tc-99 cleanup.
- **High Priority Sales - 4,600 MTU (12 M lbs U_3O_8) from 2007 through 2015**
 - Other NNSA HEU downblend program needs.
 - DOE Off-Spec Non-UF₆ at Portsmouth requiring long-term processing for commercial use.
- **Lower Priority Sales - 11,000 MTU (29 M lbs U_3O_8) from 2007 through 2015**
 - Depleted uranium sales of economic value.
 - Surplus natural uranium from "moratorium" inventory.
 - Other miscellaneous materials considered within the 10% for total DOE sales.

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Why Ten Percent?

- **Ten percent is based on the Congressional limit in FY 2006 appropriations Section 314 language for the DOE uranium cleanup program.**
- **Analysis of an annual DOE sale of up to 10% of the U.S. uranium requirement (about five million pounds of U_3O_8) was performed. There is not expected to be an adverse material impact on the domestic uranium mining, conversion, or enrichment industry.**

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Benefits to DOE and Industry

- **The proposed three-tiered Uranium Sales Strategy creates a coordinated approach among multiple DOE & NNSA programs.**
- **Industry will be in a better position to plan without concern of DOE's uranium inventories overhanging the market.**

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Send Written Comments

Comments on DOE's proposed Long-Term Uranium Sales Strategy must be in writing and sent to:

**Ed Rutkowski
Office of Nuclear Fuel Supply Security, NE-60
Office of Nuclear Energy
1000 Independence Ave., S.W.
Washington, DC 20585**

Telephone Number: 202-586-7880

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